

FIG. 1

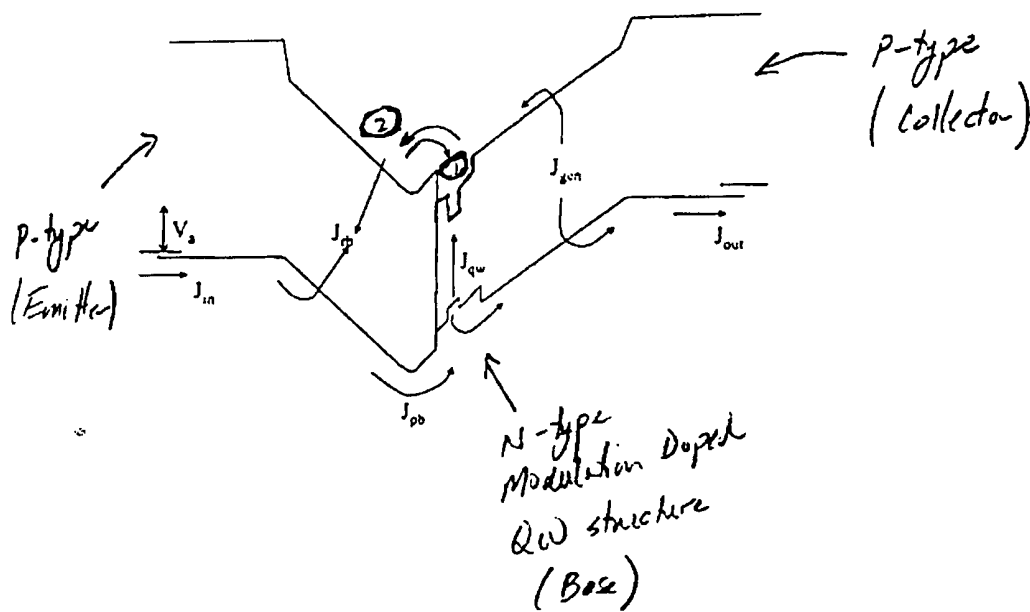


FIG. 2

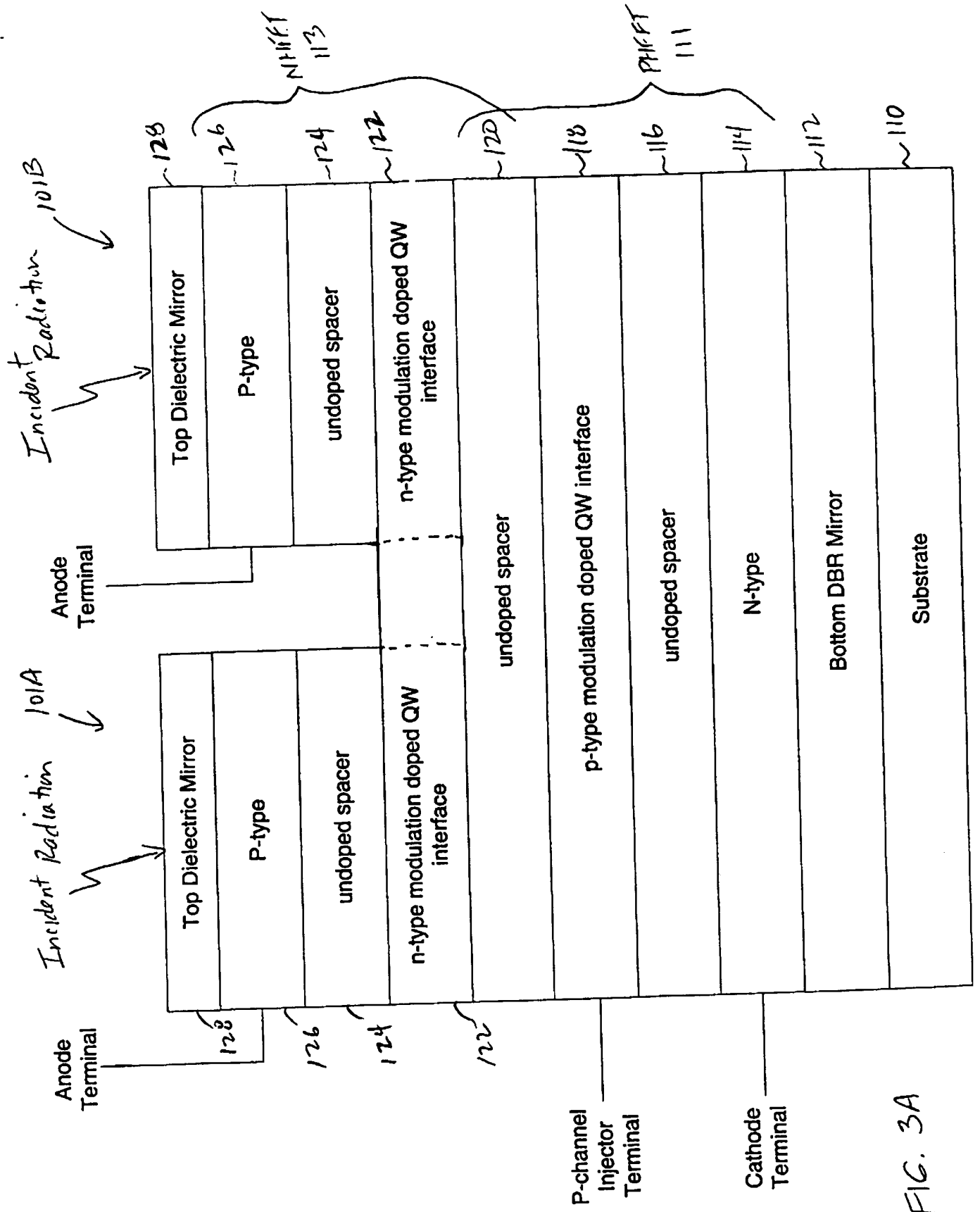


FIG. 3A

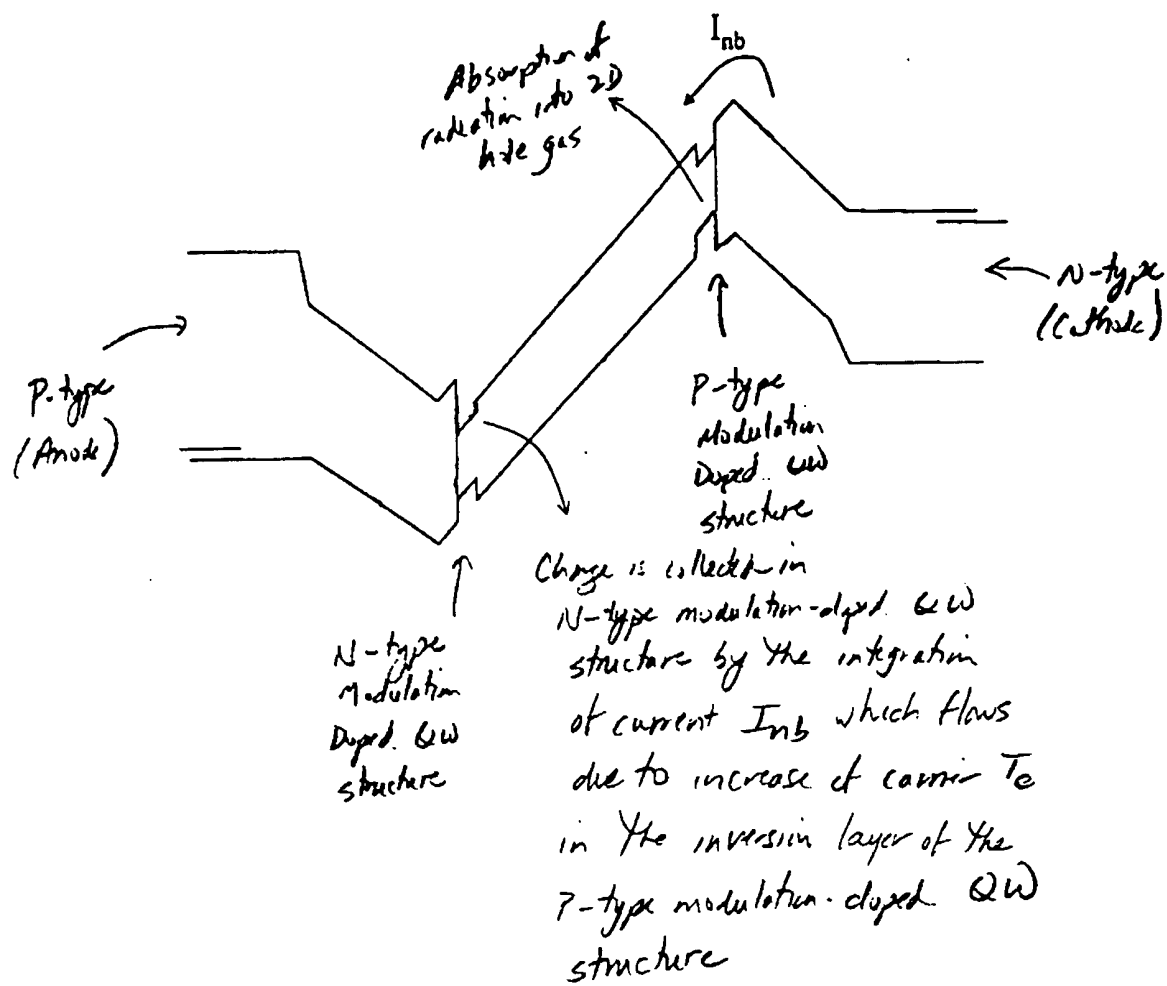
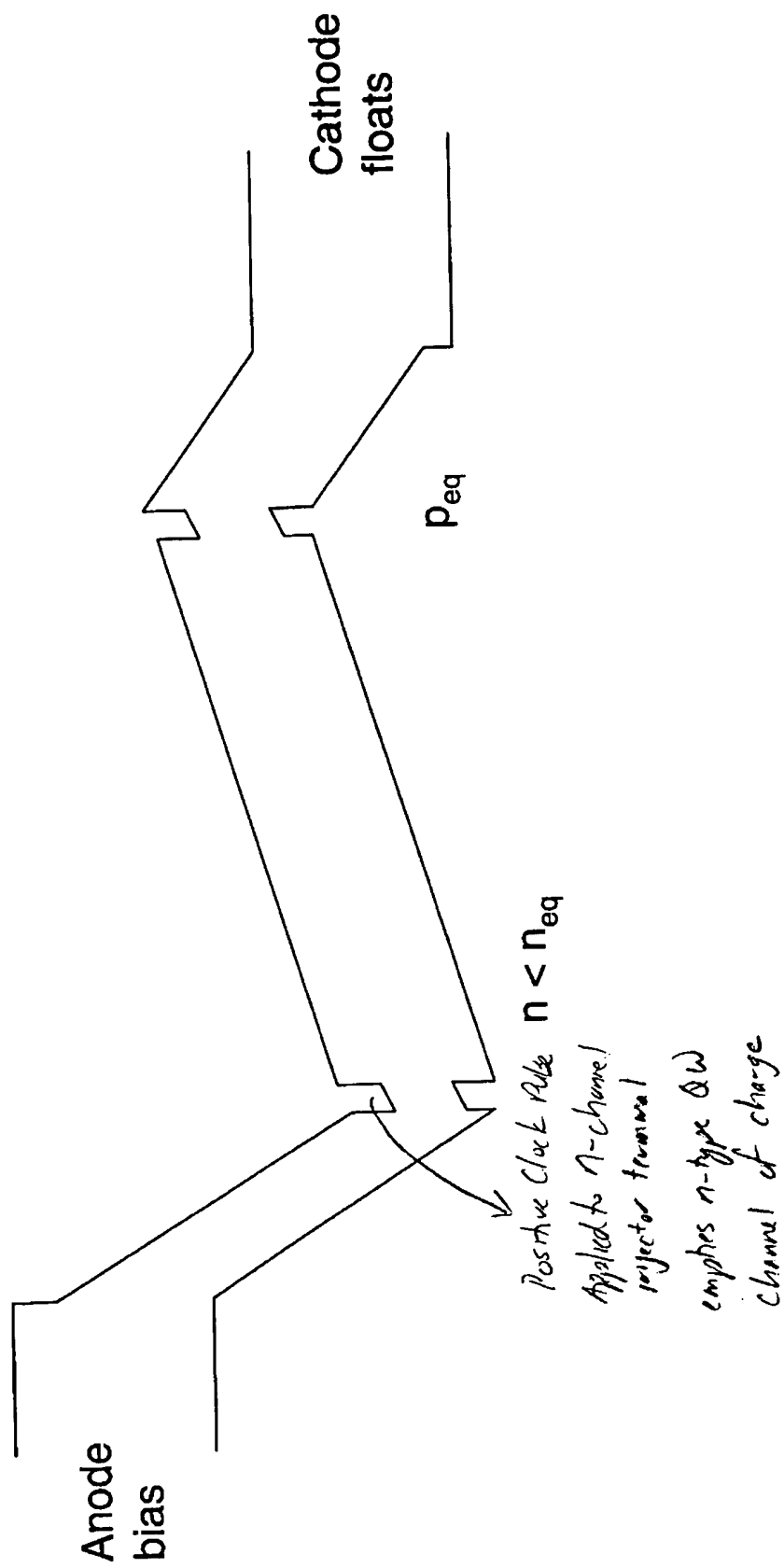


FIG. 3B

Pixel Setup Mode

FIG. 4A



Signal Integration Mode

FIG. 4B

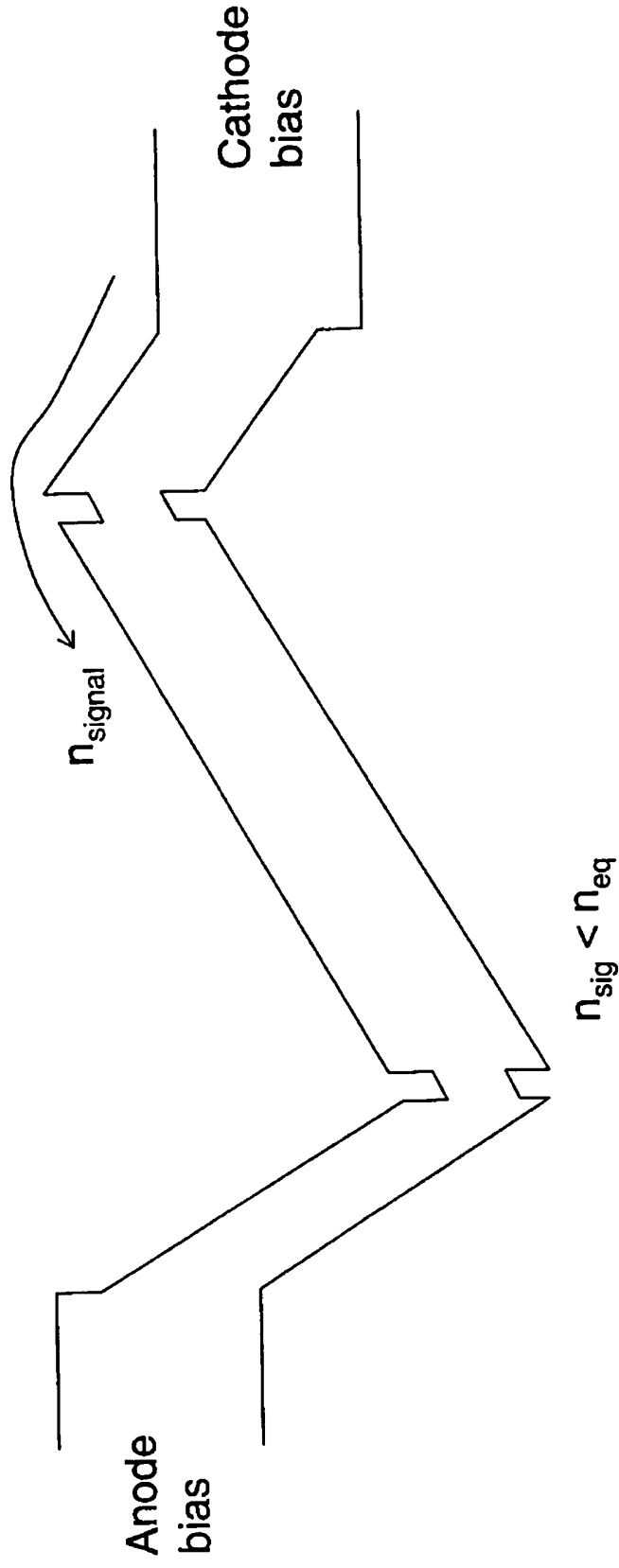
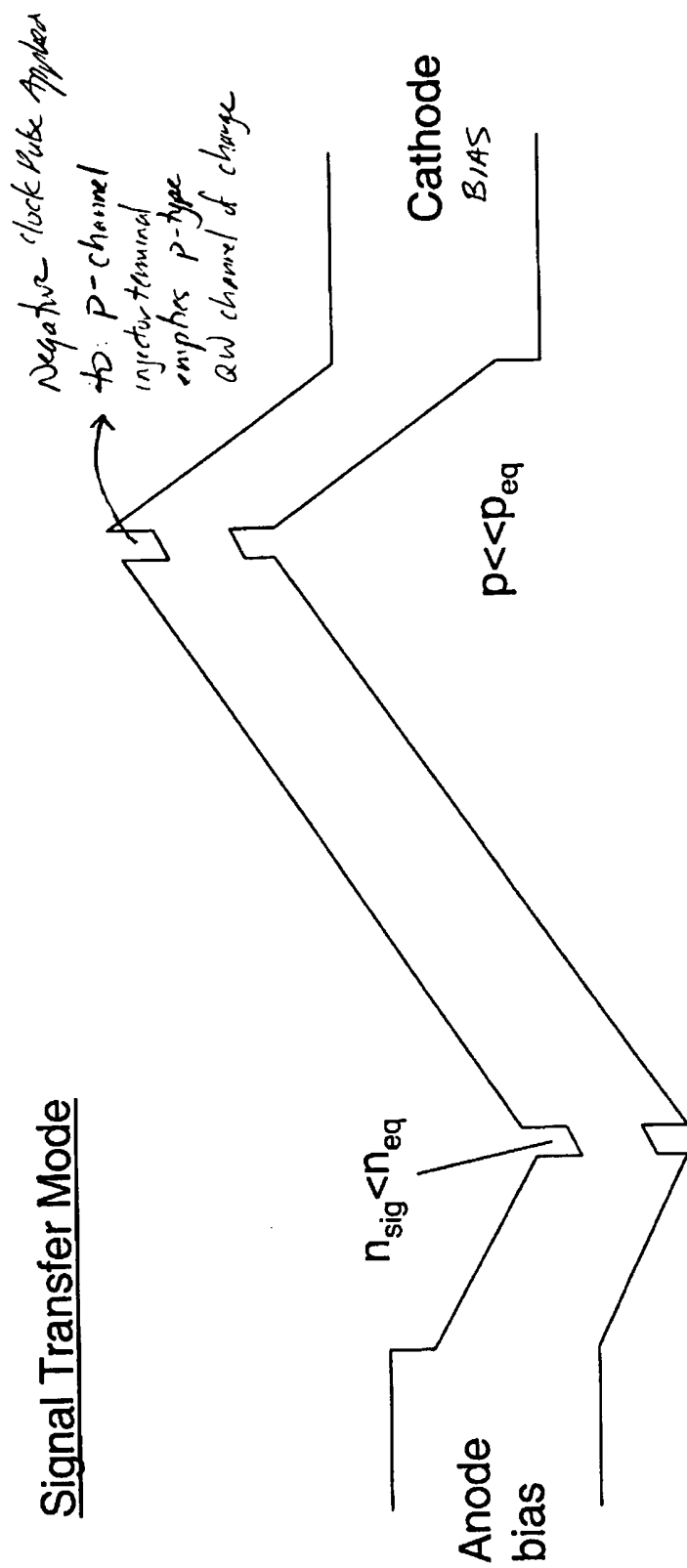


FIG. 4C

Signal Transfer Mode



	Layer Material	Layer Doping Type	Typical Doping Concentration (atoms/cm ³)	Typical Layer Thickness (Å)	Layer #
	InGaAs	P+	1E20	25	1165b
126 {	GaAs	P+	1E20	75	1165a
	Al(0.7)Ga(0.3)As	P	1E17	700	1164b
	Al(0.7)Ga(0.3)As	P+	1E19	10	1164a
	Al(.15)Ga(.85)As	P+	3.5E18	25	1163d
124 {	Al(.15)Ga(.85)As	und	und	200 - 300	1163c
	Al(.15)Ga(.85)As	N+	3.5E18	80	1163b
	Al(.15)Ga(.85)As	und	und	20-30	1163a
122 {	GaAs	und	und	15	1162
	In(.20)Ga(.80)AsN	und	und	60	1161
	GaAs } x 3	und	und	100	1160b
	GaAs	und	und	100 - 250	1160a
120 {	Al(.15)Ga(.85)As	und	und	5000	1159
	GaAs } x 3	und	und	100	1158
	In(.20)Ga(.80)AsN } x 3	und	und	60	1157
118 {	GaAs	und	und	15	1156
	Al(.15)Ga(.85)As	und	und	30	1155d
	Al(.15)Ga(.85)As	P+	3.5E18	80	1155c
116 {	Al(.15)Ga(.85)As	und	und	300	1155b
	Al(.15)Ga(.85)As	N+	3.5E18	80	1155a
114 {	Al(0.7)Ga(0.3)As	N	1E17	700	1154
	GaAs	N+	3.5E18	2200	1153
	AlAs	und	und	1701	1151
112 {	GaAs } x 7	und	und	696	1152
	AlAs	und	und	1701	1151
110 {	GaAs Substrate		SI		1149

FIG. 5

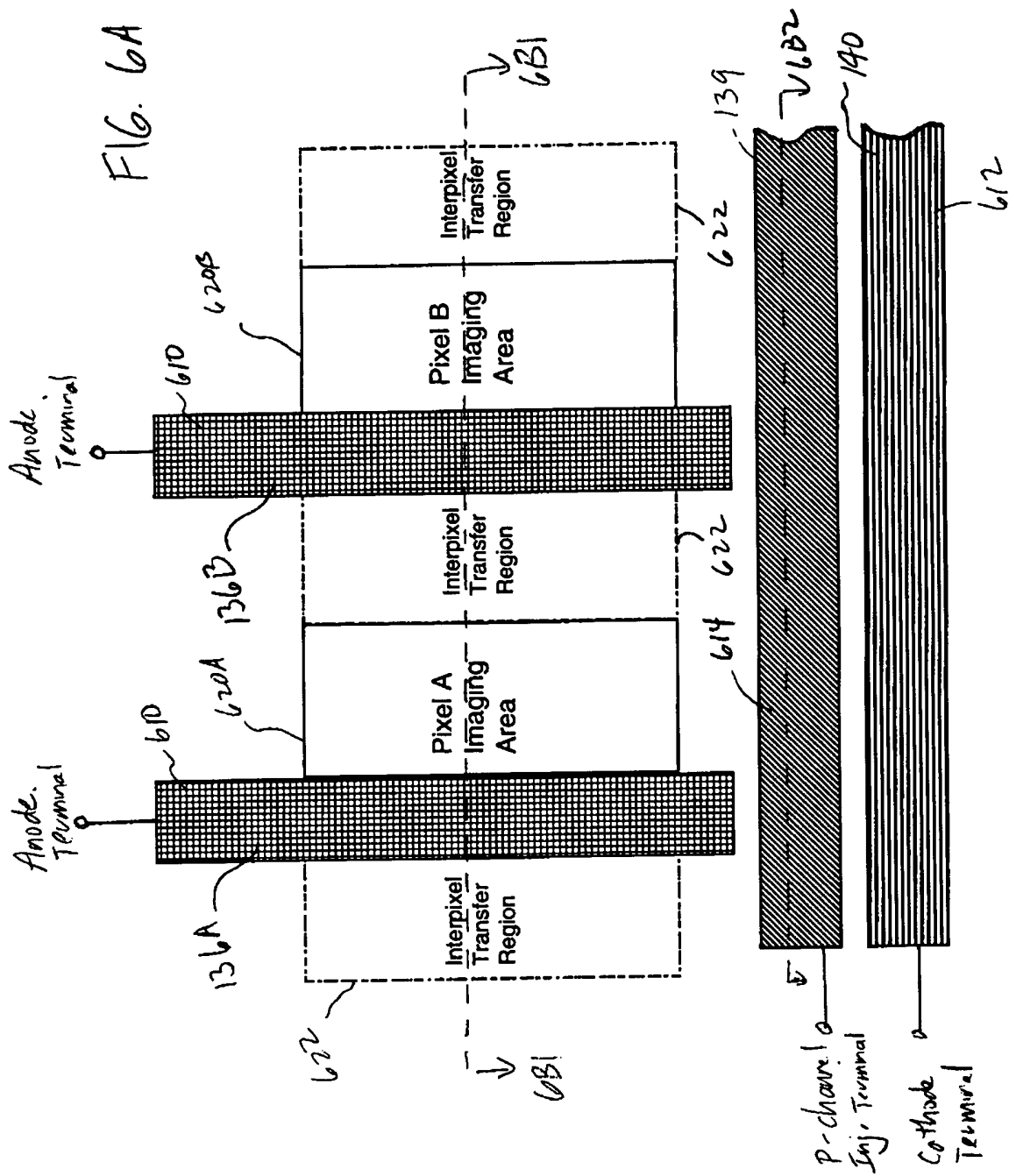
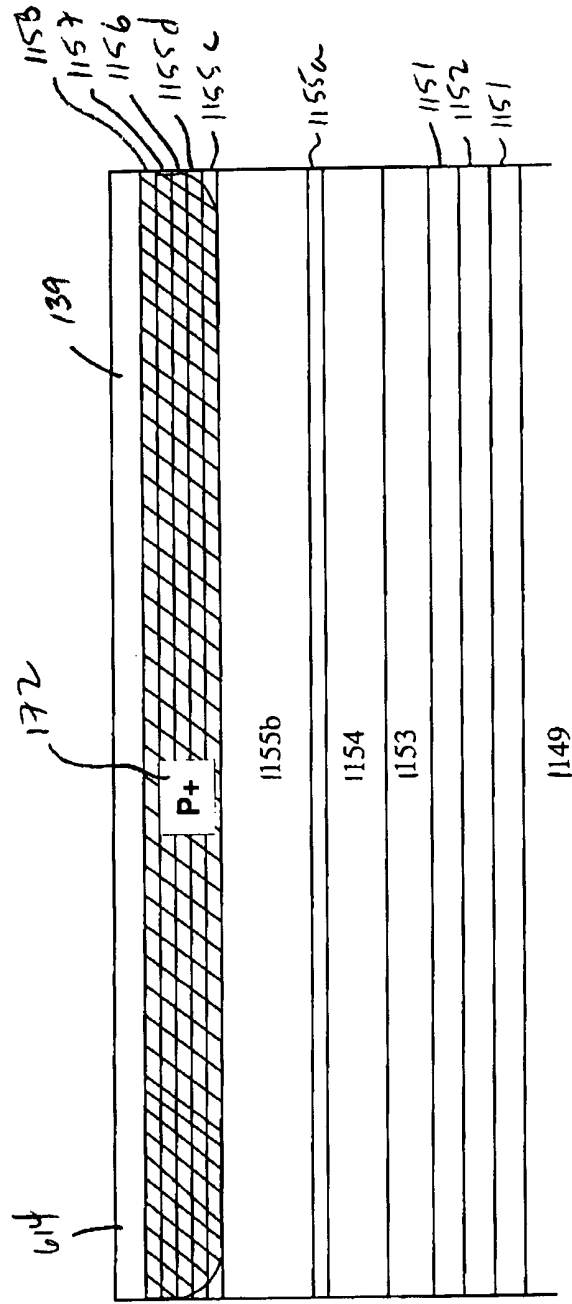


FIG. 6B2



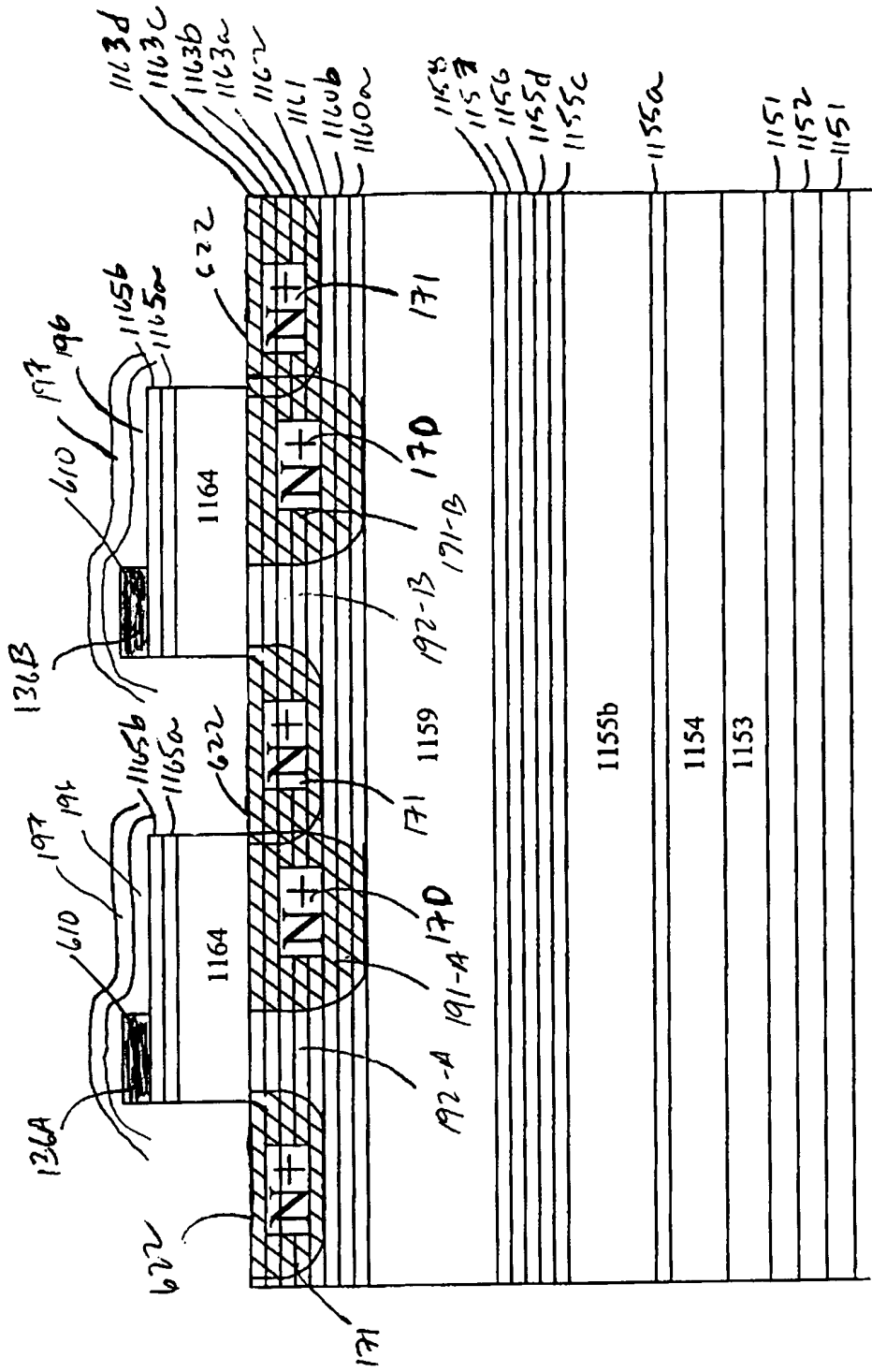


FIG. 6B1

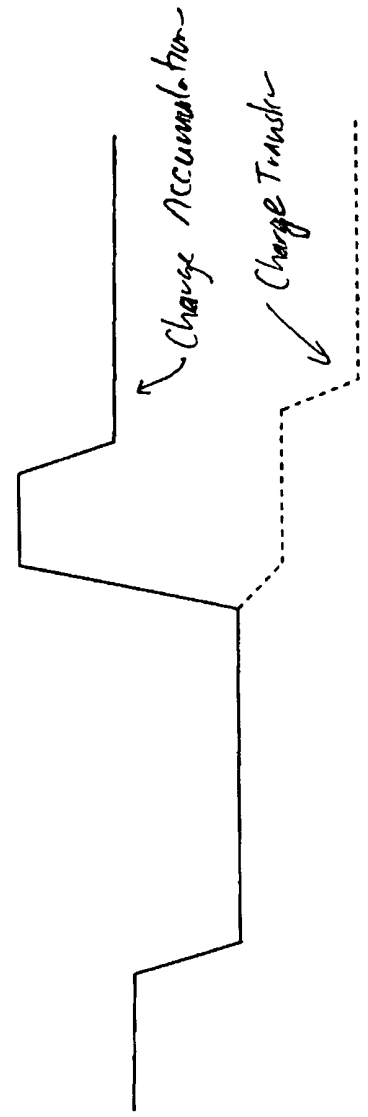


FIG. 6C

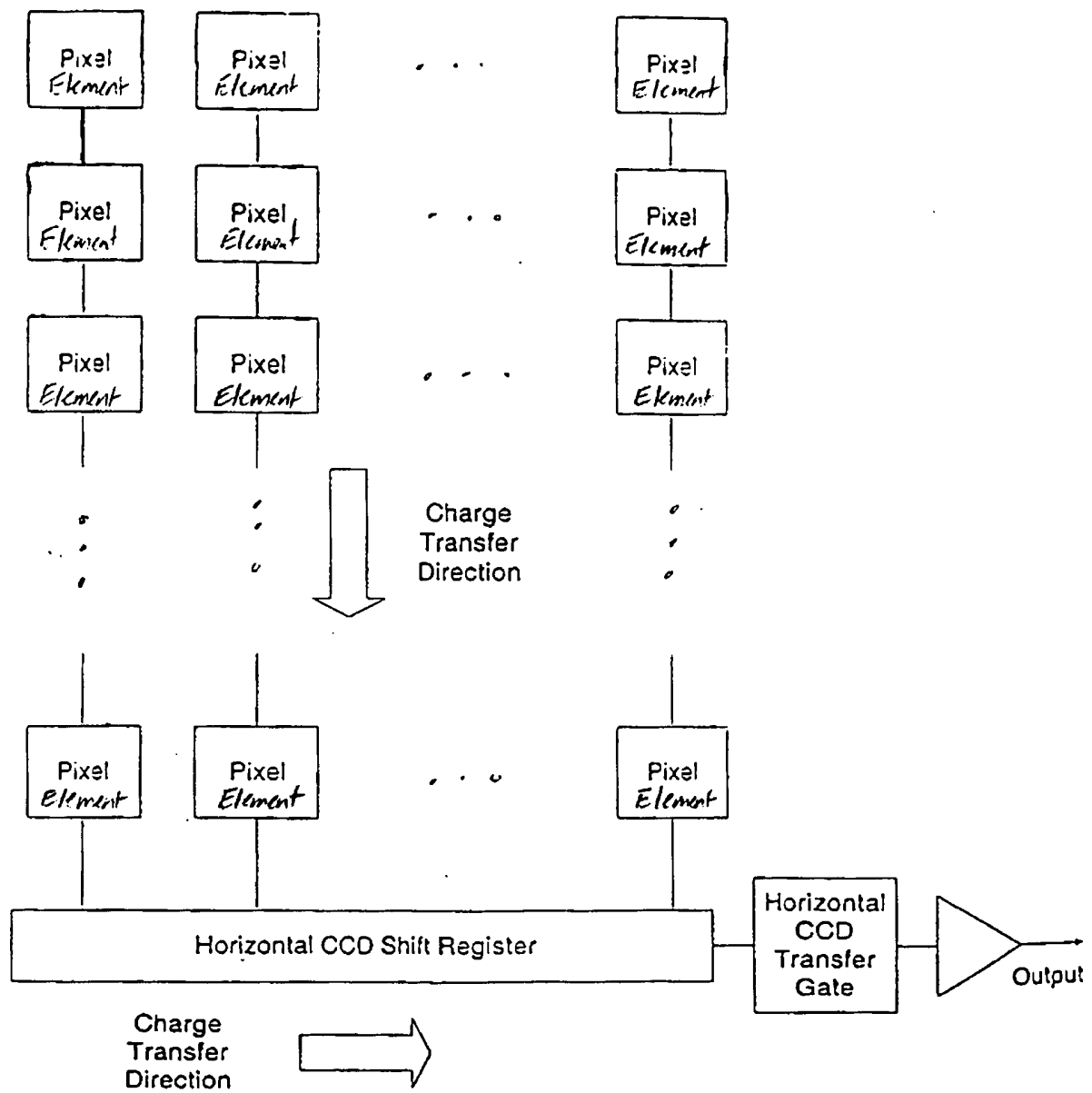
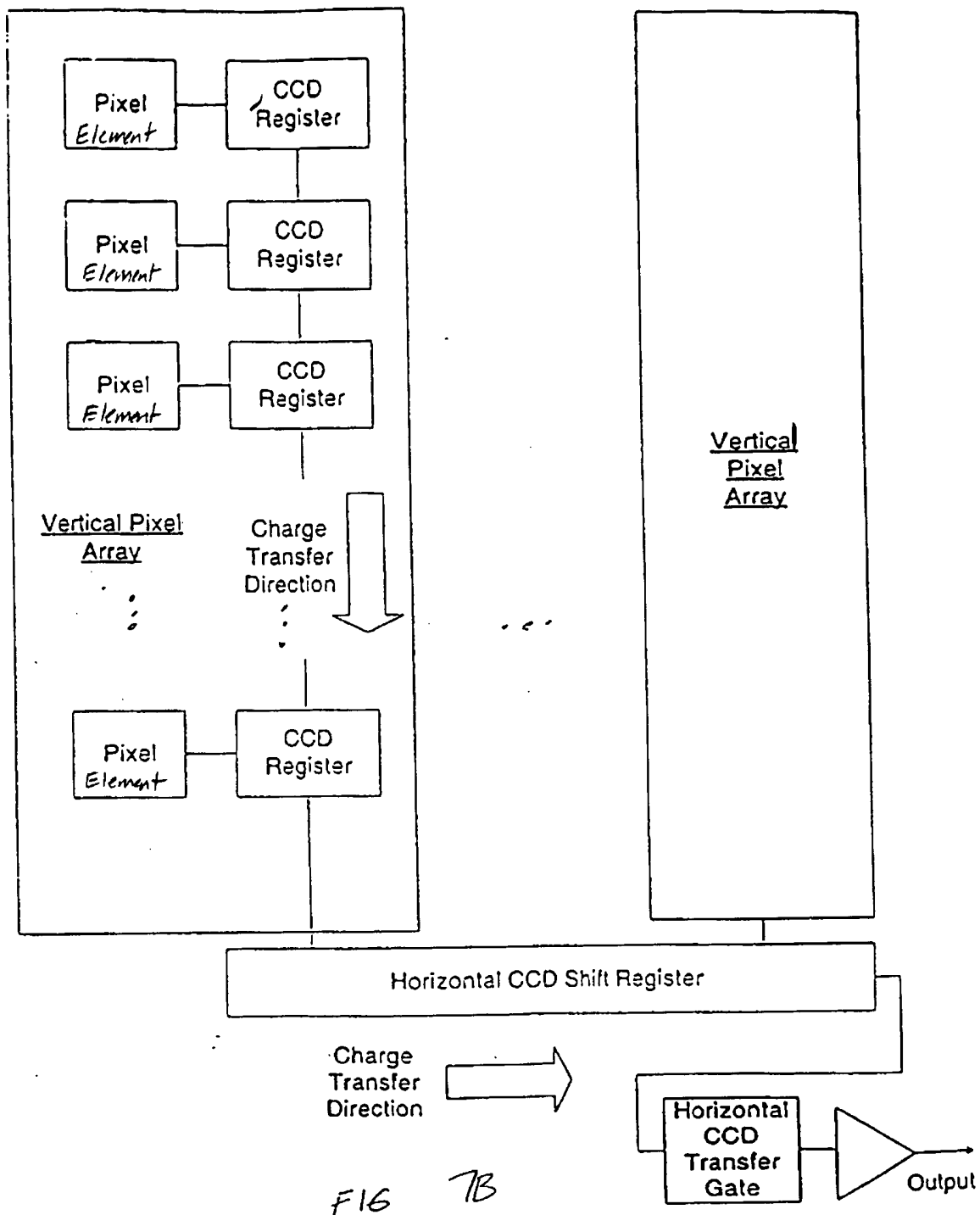
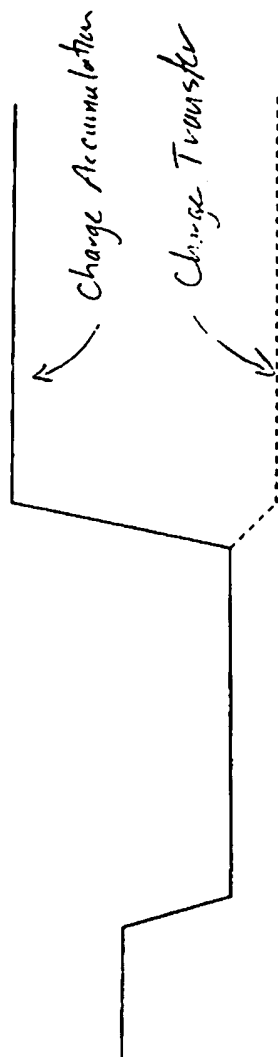
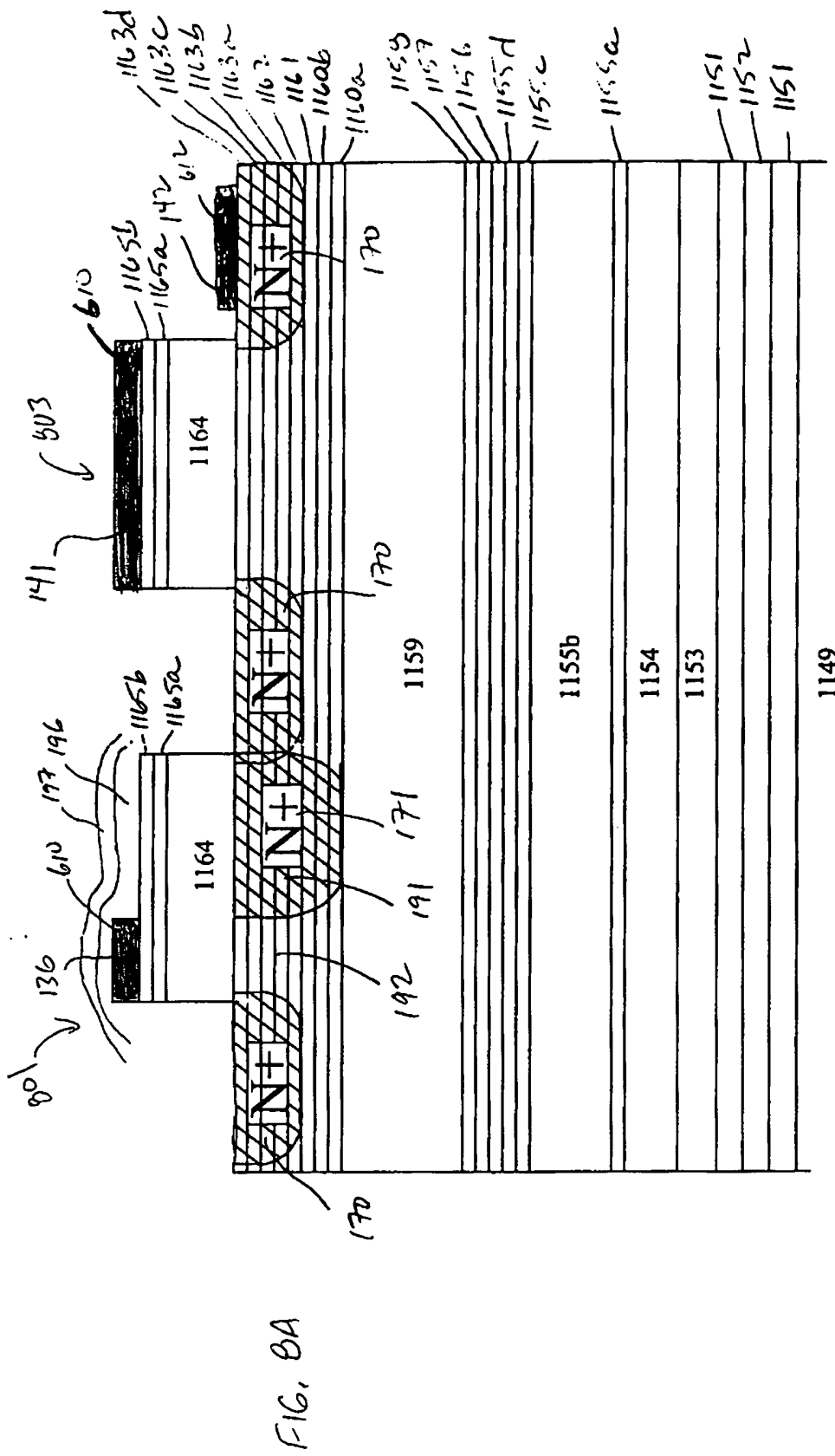


FIG. 7A





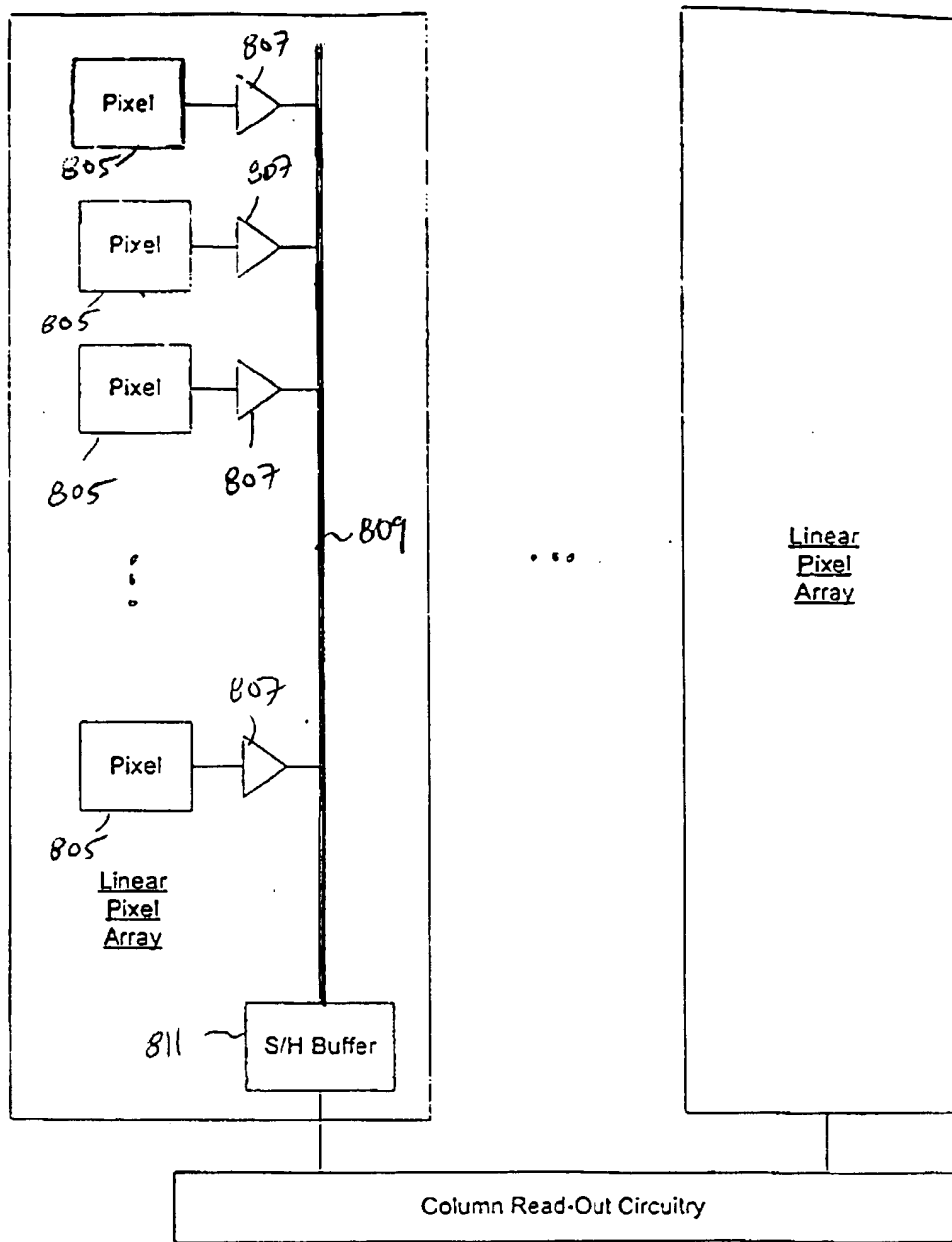


FIG. 8C